

What is claimed is:

1. An UDDI web service registry system based on an ebXML registry comprising:

5       a first client system for supporting a web service based on an UDDI protocol and transceiving an UDDI message;  
      an UDDI registry for processing a service request of the UDDI message;

      a second client system for supporting a web service  
10   based on an ebXML protocol and transceiving an ebXML message;

      an ebXML registry for processing service requests of the compatible ebXML message; and

      an UDDI service module for transforming the UDDI  
15   message into a compatible ebXML message and transmitting the ebXML message to the ebXML registry.

2. The system of claim 1, wherein the first client system further includes a module for transmitting/receiving an  
20   ebXML message to/from the ebXML registry through an ebXML message application program.

3. The system of claim 1, wherein the second client system further includes a module for transmitting/receiving an UDDI  
25   message to/from the UDDI registry or the UDDI service module through an UDDI message application program.

4. The system of claim 1, wherein the UDDI service module includes an interface for transceiving the UDDI message, an analysis unit for analyzing a service request of the UDDI message, a data transform unit for transforming an UDDI message into a compatible ebXML message according to an ebXML protocol, a generation unit for generating the transformed ebXML request message and a communication module for transmitting the generated ebXML request message to the ebXML registry.

5. The system of claim 4, wherein the data transform unit transforms the UDDI message into an ebXML message having an update/registration request in accordance with an ebXML protocol depending on whether or not there exists an information storage key in the ebXML registry, in case the analyzed UDDI message request is an information storage request.

6. The system of claim 4, wherein the data transform unit transforms the UDDI message into an ebXML message having an ebXML instance cancellation/deletion request depending on whether or not there exists reference or related information between a to-be-deleted instance and another instance in the ebXML registry, in case the analyzed UDDI message request is a registration of a deletion.

7. The system of claim 4, wherein the data transform unit transforms the UDDI message into an ebXML query message data having an organization instance as a query object when the  
5 analyzed UDDI request message includes a query response of a business entity, the UDDI message into an ebXML query message data having a service instance as a query object when the UDDI message includes a query response of a business service, the UDDI message into an ebXML query  
10 message data having a service binding instance as a query object when the UDDI message includes a query response of a binding template, and the UDDI message into an ebXML query message data having a specification link instance, a classification scheme instance and a classification node  
15 instance when the UDDI message includes a query response of a grouping model.

8. The system of claim 1, wherein the UDDI service module transforms the ebXML response message received from the  
20 ebXML registry into a compatible UDDI message according to an UDDI protocol and then transmits the UDDI message to a client system that requested a service.

9. The system of claim 8, wherein the UDDI service module  
25 includes a communication module for transceiving the ebXML message from the ebXML registry, an analysis unit for

analyzing a response type of the ebXML message, a data transform unit for transforming the ebXML message into a compatible UDDI message based on the analysis result of the analysis unit, a generation unit for generating the transformed UDDI result message and an interface for transmitting the generated UDDI result message to a client system that requested a service.

10. The system of claim 4, wherein the UDDI service module further includes a mapping module unit for performing a mapping process and managing compatibility and a data transform between UDDI-ebXML messages transformed by the UDDI message data transform unit and the ebXML message data transform unit.

11. The system of claim 9, wherein the data transform unit, in case information is not sufficient for transforming the ebXML message into a compatible UDDI message, receives information from an ebXML UDDI data extension unit separately installed in the ebXML registry and then reconstitutes an UDDI message.

12. The system of claim 9, wherein the data transform unit transforms the ebXML message into an UDDI message having a response of an error code or a result code according to a registration process result of the ebXML registry in case

the analyzed ebXML message is a registration response.

13. The system of claim 9, the data transform unit transforms the ebXML message into an UDDI message having a response based on an instance in received information or an error-processed response depending on whether or not a response result conforms to a query object in case the analyzed ebXML message type is a query response.

14. The system of claim 13, wherein the data transform unit transforms the ebXML message into an UDDI message having a business entity element in case a query object of the analyzed ebXML message is an organization instance, the ebXML message into an UDDI message having a business service element in case a query object of the ebXML message is a service instance, the ebXML message into an UDDI message having a binding template element in case a query object of the ebXML message is a service binding instance, the ebXML message into an UDDI message having a grouping model element in case a query object of the ebXML message is a specification link instance, a classification link instance or a classification node instance.

15. A method for managing an UDDI web service registry system based on an ebXML registry, the method comprising the steps of:

(a) checking whether an UDDI message is received from a client system;

(b) checking whether a service request of the UDDI message is a registration request or a query request in case  
5 the UDDI message is received;

(c) checking whether there exists an information storage key in the ebXML registry in case the service request of the UDDI message is the registration request;

(d) transforming the received UDDI message into a  
10 compatible ebXML message having an update request according to an ebXML protocol in case there exists the information storage key;

(e) transforming the received UDDI message into a compatible ebXML message having a registration request  
15 according to an ebXML protocol in case the information storage key does not exist; and

(f) transmitting the transformed ebXML message to the ebXML registry.

20 16. The method of claim 15, wherein the step (c) is carried out in case a service request of the UDDI message is an information storage request.

17. The method of claim 15, if it is checked in the step (b)  
25 that the service request of the UDDI message is a deletion request, comprising the steps of:

checking whether there exists reference or related information between a to-be-deleted instance and another instance in the ebXML registry;

transforming the UDDI message into a compatible ebXML message having a cancellation request of an ebXML instance according to an ebXML protocol in case there exists the reference or related information between the to-be-deleted instance and another instance;

transforming the UDDI message into a compatible ebXML message having a deletion request of an ebXML instance according to an ebXML protocol in case the reference or related information do not exist between the to-be-deleted instance and another instance; and

transmitting the transformed ebXML message to an ebXML registry.

18. The method of claim 15, if it is checked in the step (b) that the service request of the UDDI message is the query request, comprising the steps of:

transforming the UDDI message into a compatible ebXML query message having an organization instance according to an ebXML protocol in case a query response of the received UDDI message is a business entity;

transforming the UDDI message into an ebXML query message having a service instance in case a query response of the UDDI message is a business service;

transforming the UDDI message into an ebXML query message having a service binding instance in case a query response of the UDDI message is a binding template;

transforming the UDDI message into an ebXML query message having a specification link instance, a classification scheme link and a classification node instance in case a query response of the UDDI message is a grouping model; and

transmitting the transformed ebXML message to an ebXML registry.

19. A method for managing an UDDI web service registry system based on an ebXML registry, the method comprising the steps of:

(a') checking whether an ebXML message is received from the ebXML registry;

(b') checking whether a response type of the received ebXML message is a registration response or a query response;

(c') transforming the ebXML message into a compatible UDDI message having a response of an error code or a result code according to an UDDI protocol in case the ebXML message type is the registration response;

(d') transforming the ebXML message into a compatible UDDI message having a response based on an instance in received information or an error-processed response



according to an UDDI protocol depending on whether a response result conforms to a query object in case the ebXML message is the query response; and

(e') transmitting the transformed UDDI message to a request client system.

20. The method of claim 19, wherein the step (d') further includes the steps of:

transforming the ebXML message into a compatible UDDI message having a response based on an instance in received information according to an UDDI protocol depending on whether a response result conforms to a query object in case the ebXML message type is a query response;

transforming the ebXML message into a compatible UDDI message having a business entity element according to an UDDI protocol in case the received ebXML message has an organization instance;

transforming the ebXML message into a compatible UDDI message having a business service element according to an UDDI protocol in case the received ebXML message has a service instance;

transforming the ebXML message into a compatible UDDI message having a binding template element according to an UDDI protocol in case the received ebXML message has a service binding instance; and

transforming the ebXML message into a compatible UDDI

message having a grouping model element according to an UDDI protocol in case the received ebXML message has a specification link instance, a classification scheme instance or a classification node instance.

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21. The method of claim 19, wherein the steps (c') and (d') further includes the step of reconstituting an UDDI message by receiving information from an ebXML UDDI data extension unit separately installed in the ebXML registry if  
10 information is insufficient to perform a transform.